A case of congenital absence of the right lower limb in a Teal

by James Harrison

Received 21st June, 1967

The literature contains fairly numerous references to birds of various species which have suffered a partial amputation of a lower limb.

Usually such cases can be recognised as due to some form of trauma; sometimes this appears to be the result of gunshot-wound, but an even more frequent cause is the injury and interference with the circulation resulting from being caught by the leg by a clam, the portion trapped in the mollusc ultimately sloughing off. The writer shot such a duck, an adult drake Wigeon, *Anas penelope*, some seasons ago, the bird being in excellent general condition.

The principal subject of this note is a first winter drake Teal, *Anas crecca*

Photograph by Pamela Harrison

Pelvic girdle and left leg of Teal, showing congenital absence of right leg.
Note. the left leg and left half of the pelvis are quite normal.

crecca, which was shot by Mr. Hugh Andrews on 7th January, 1967 on Holbeach Marsh in Lincolnshire.

Dissection of the Teal indicates that the missing leg must have been of congenital origin; in fact, an instance of a developmental error, in which in embryological life a limb bud had failed.

The basis for this opinion is the discrepancy in the measurements of the two sides of the pelvis, and the fact that the right acetabulum is obviously poorly developed. The overall attenuation is, of course, due to the fact that the stimulus of weight bearing and other movements has been lacking. The measurements are as under:–

	Right side	Left side
ischia:	(measured from end of dorsal vertebrae to the acetabulum)	=23 mm 22mm
ilia:	(measured from the acetabulum to tubercle on posterior free edge of ilium)	=28 mm 27mm
free end of pubic bones:	(measurements taken from their origins to tips)	=22 mm 22mm

The interest of these measurements is enhanced by the fact that the last pair are equal, and the only observable difference is that the right side is appreciably attenuated. That this component of the pelvis has maintained its growth apparently normally insofar as length is concerned, is evidence that this occurs independently of stress, though lacking the factor connected with weight bearing, and that other stresses, no doubt operating in a normal individual, have been insufficient to stimulate this element of the pelvic girdle, in a bird with this anomaly, to full development.

This bird was hatched last year and is in the transition plumage from immature to first winter dress. Its general condition, like that of the Wigeon was excellent. The case is of particular interest, for it passed through the aowny stage into full body growth and into its first winter plumage. Indeed on general grounds it would presumably have advanced into the ddult stage, had it not been culled in the course of wildfowling.

Here we have a bird which from the moment of hatching was obliged to hop when on the ground, demonstrating the fact that in a species which normally walks, no matter at what stage the limb is lost, it can, without apparent loss of condition, adapt to this new mode of progression.

Recently I watched a small party of Starlings (*Sturnus vulgaris*) feeding on a lawn. One, like the Teal, was lacking a leg, and it was interesting to see how, when the bird wanted to scratch its head, it was obliged to "lean" on the fore-edge of the wing of the opposite side in order to be able to do so.

What the cause was for the loss of the limb in this Starling one could not, of course, say, but in life there was no visible vestige of any part of the limb, and impression was that this, like the Teal, was a case of congenital absence.

Acknowledgements: my best thanks are due to Mr. Hugh Andrews for the specimen, and to Dr. Jeffery Harrison who made it possible for me to examine it. I am also much indebted to Dr. Pamela Harrison for the photograph.

NAT. HIST. 5 OCT 1967